

REMARKS

The Examiner is thanked for the careful review of the application as set forth in the outstanding office action. Reconsideration of the application in view of the foregoing amendments and the following discussion is respectfully requested.

Claims Rejections - 35 USC 102

Claims 1-11, 14-31, 35 and 36 stand rejected as being anticipated by Cline et al. ("Cline"). The rejection is respectfully traversed on the grounds that a prima facie case of anticipation has not been established, and Cline does not describe each element of the claimed subject matter.

To anticipate a claim, the reference must teach each element of the claim. The elements must be arranged as required by the claim. MPEP 2131.

Claim 1 is drawn to a method for testing a spa system which includes a spa tub for holding water, an electronic controller system which controls the spa system functions, [A] a plurality of controlled devices controlled by the controller system including a [B] pump for recirculating water in the tub, and a [C] heater for heating water, the method comprising:

[D] exercising the plurality of controlled devices during a testing regime;

[E] monitoring an electrical current drawn by the spa system;

[F] determining whether the electrical current drawn by the spa system during the testing regime is consistent with an expected current profile.

Here, the letter prefixes have been added for convenience in reference.

The Examiner alleges that Cline describes each element of the subject matter of Claim 1. The applicants respectfully disagree.

Cline does not disclose, for example, elements D or F. As for element D, the Examiner points to Cline at 12:43-62. This passage is quoted below:

An exemplary main operational routine 700 illustrating the programmed operation of the microprocessor 402 is shown in FIG. 14A. After system powerup (702), a "check GFCI" subroutine 704 is performed. This subroutine has for its purpose to electronically test whether the GFCI 62 is properly operational, and is described more fully with respect to FIGS. 14B and 15. Upon successful completion of GFCI test, the main program is run (706). The main program performs the control functions needed for running the various pool and spa functions, including running the heater and pump. The primary function of the main program is to monitor safety issues, such as over-temperature conditions. Thus, the main program will manage water temperature in the pool and spa. Other functions performed in the main program are to monitor the clock and real time to determine when to activate features, e.g. lights, heater, and the like in accordance with a programmed time schedule. The microprocessor is user-programmable to set up the schedule. U.S. Pat. Nos. 5,361,265 and 5,559,720 describe techniques for programming microprocessors in a spa environment.

This passage of Cline describes a "check GFCI" subroutine, and a main program of the programmed operation of the microprocessor. This passage does not describe "exercising the plurality of controlled devices during a testing regime" wherein the plurality of devices includes [B] (i.e., a pump for recirculating water in the tub), and [C] (i.e., a heater for heating water). This passage describes a test routine for testing the GFCI, not for exercising the plurality of controlled devices during a test regime as set out in Claim 1.

As for F, the Examiner points to Cline at 10:1-5. This passage of Cline includes: "Each load circuit is also protected from excessive current draw by a fuse device. Thus, the spa jet pump is controlled by relay 280 and circuit protection is provided by fuse 286, respectively mounted on the circuit board 250." The features set out at F, determining whether the electrical current drawn by the spa system during the testing regime is consistent with an expected current profile, are not described by this passage of Cline. Cline does not

describe a testing regime as set out in Claim 1, and does not determine whether the electrical current drawn by the spa system during the testing regime is consistent with an expected current profile.

For these reasons, a *prima facie* case of anticipation has not been established, and the applied reference does not describe each element of Claim 1.

The claims depending from Claim 1 are also not anticipated by Cline, and add further distinguishing features. For example, Claims 3-9 further define element D of Claim 1. Cline does not disclose "exercising the plurality of controlled devices during a testing regime" as further defined in these claims. While Cline describes such features as a spa pump, heater, blower, spa lights, the exercising of these particular features in a testing regime as recited in Claim 1 and the "determining whether the electrical current drawn by the spa system during the testing regime is consistent with an expected current profile" is not described in Cline.

For similar reasons, Cline does not describe the features of Claims 8-9. While Cline describes at 4:40-64 that the controller 100 controls the operation of various devices connected to the spa system, there is no description of the particular features described in Claims 8-9. For example, Cline does not describe a testing regime wherein all of the controlled devices are operated simultaneously to measure a maximum current load of the spa.

Similar considerations apply to Claim 14. Although Cline describes a control panel, the reference does not describe a method for testing a spa system as in Claims 1 and 14, which includes testing the spa control panel.

Claim 15 is drawn to a method for testing a spa system which includes a spa tub for holding water, an electronic controller system which controls the spa system functions, [A] a plurality of controlled devices controlled by the controller system including [B] a pump for recirculating water in the tub, and [C] a heater for heating water, the method comprising:

- [D] connecting a test station to the spa system under test;
- [E] exercising the plurality of controlled devices during a testing regime;

[F] providing power sensor signals to the test station indicative of a magnitude of electrical power drawn by the spa during the testing regime;

[G] using the power sensor signals to generate a test report indicative of a response to the spa under test to the testing regime.

Here, the letter prefixes have been added for convenience in reference.

Cline does not describe all elements of Claim 15, including, for example, D, E, F or G.

The Examiner asserts that Cline at FIG. 1 describes element D. FIG. 1 does not describe connecting a test station to a spa system under test, but rather is "a diagrammatic view of a pool and spa system." Applicants thus disagree that FIG. 1 of Cline describes D.

Cline does not describe E, as already discussed above regarding Claim 1.

The Examiner asserts that Cline at 13:33-55 describes element F. Applicants disagree; this passage describes the GFCI test performed by the system, but not "providing power sensor signals to the test station indicative of a magnitude of electrical power drawn by the spa during the testing regime."

Regarding element G, Cline does not disclose "using the power sensor signals to generate a test report indicative of a response to the spa under test to the testing regime." Cline at 14:49-65 describes a response to a failed GFCI test, but this does not read on using power sensor signal indicative of a magnitude of electrical power drawn by the spa during the testing regime.

Cline does not disclose all elements of Claim 15. The rejection under Section 102 should be withdrawn.

The rejection of claims depending from Claim 16 should be withdrawn as well, for the reasons discussed regarding Claim 15, and because these claims add further distinguishing features to the subject matter of Claim 15. For example, while the Examiner asserts that features of Claim 16 are disclosed at FIG. 6 of Cline, this figure does not disclose a test station or "establishing an electrical signal connection between the electronic controller and the test station to allow commands to be passed from the test station to the electronic controller."

Claim 25 is drawn to a test system for testing a spa system which includes a spa tub for holding water, an electronic controller system which controls the spa system functions, [A] a plurality of controlled devices controlled by the controller system including [B] a pump for recirculating water in the tub, and [C] a heater for heating water, the test system comprising:

[D] a current sensor for sensing a spa current drawn by the spa system and providing a sensor signal indicative of the spa current;

[E] a test computer system;

[F] a data link between the spa controller system and the test computer system for transmitting spa system data to the test computer system and commands from the test computer system to the spa controller system;

[G] a set of test instructions for execution by the test computer system for generating a set of commands to the spa controller to exercise the plurality of controlled devices during a testing regime;

[H] the test computer system adapted to monitor said sensor signals during the testing regime and to determine whether the electrical current drawn by the spa system during the testing regime is within a predetermined specification.

The applicants respectfully submit that Cline does not describe elements D-H. The office action does not address element D. The applicants respectfully disagree with the Examiner's contention that Cline in FIG. 6 describes sending a command or set of commands from a test station to the electronic controller of the spa system to exercise the plurality of controlled devices during a testing regime. In the event this rejection is maintained, the Examiner is respectfully requested to particularly indicate how FIG. 6 of Cline describes these features. Cline does not describe the features of H, for reasons similar to those discussed above regarding Claim 1.

Cline does not describe each element of Claim 25, and thus cannot anticipate Claim 25. Similar considerations apply to Claim 36.

The claims depending from Claim 25 are also not anticipated by Cline. For example, Claim 35 recites that the system further includes a set of spa configuration data reflecting the configuration status of the spa under test and nominal current draw specifications for the spa controlled devices. The Examiner asserts that Cline describes these features at 10:1-5. Applicants disagree, and respectfully submit that a fuse does not describe the features of Claim 35.

Claims Rejections - 35 USC 103

Claims 12, 13 and 32-34 stand rejected as being unpatentable over Cline in view of Abrams et al. ("Abrams"). This rejection is respectfully traversed on the grounds that a prima facie case of obviousness has not been established, and the applied references do not teach or suggest the claimed subject matter.

Claim 12 depends from Claim 1, and is allowable over the applied combination of references for the reasons discussed above regarding Claim 1. Claim 12 adds the limitations "printing a certificate indicative of a successive test result if the spa under test operates normally during the testing regime." The Examiner alleges that Abrams discloses printing a report (11:48-65), and that it would have been obvious to modify Cline to print a report, as taught by Abrams, because this would provide a hard copy of the test results. Applicants respectfully disagree.

The alleged combination of Cline and Abrams is the result of improper hindsight reconstruction, with the Examiner using applicants' disclosure as a blueprint, and the Examiner seeking isolated elements of the claimed subject matter from unrelated references. Abrams describes a system of intelligent appliances coupled by common household power lines or wireless links. A kitchen console 50 is connected to a printer to print a shopping list. There is no teaching or suggestion in the applied references to combine the references or modify Cline in the manner suggested.

Measuring a claimed invention against the standard established by 35 USC 103 requires the critical step of casting the mind back to the time of invention, to consider only the thinking of one of ordinary skill in the art, guided

only by the prior art references and the then-accepted wisdom in the art. The case law of the Federal Circuit makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. Evidence of a suggestion, teaching or motivation may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or in some cases, from the nature of the problem to be solved. The range of sources available, however, does not diminish the requirement for actual evidence. The showing of such actual evidence must be clear and particular. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. The required showing of evidence should include particular factual findings. In re Dembiczak, 50 USPQ 2d 1614, 1617 (Fed.Cir. 1999).

Here, there has been no showing of a suggestion to modify or combine from any of the permitted sources. Instead, a broad conclusory statement is proffered which fails to satisfy the requirement for particular factual findings. The rejection should be withdrawn.

Similar considerations apply to Claim 32.

Claim 13 depends from Claim 1, and further recites:

establishing a data communication link between the spa electronic controller and a test computer system;

periodically passing spa status data over the data communication link from the spa electronic controller to the test computer system indicative of a status of the spa and the controlled devices;

passing commands over the data communication link from the test computer system to the spa electronic controller for execution by the spa electronic controller.

Neither applied reference describes a test computer system, let alone a data communication link between the spa electronic controller and the test computer system. The Examiner's contention that Cline discloses a test computer system is unsupported by reference to the record. Nor does either

reference teach or suggest the limitations of the later two paragraphs of Claim 13. The rejection of Claim 13 should be withdrawn, as the product of improper hindsight reconstruction.

Claims 32-34 depend from Claim 25, and are allowable for the reasons discussed above regarding Claim 25.

Withdrawal of the rejection under Section 103 is respectfully requested.

New Claims

New Claims 37-44 have been added, and depend, directly or indirectly, from claims already discussed above as being allowable over the applied references. These claims add further distinguishing features, and are also in condition for allowance.

Information Disclosure Statement

It is noted that the five pages of PTO-1449 attached to the outstanding office action as having been reviewed by the examiner appear to be for a different case, having a different inventor and attorney docket number listed. These five pages were not submitted by applicant of this application.

An IDS is being submitted herewith. By submission of the IDS, applicants do not concede that any reference cited therein constitutes prior art with respect to this application.

Conclusion:

The outstanding rejections have been addressed, and the application is in condition for allowance. Such favorable reconsideration is solicited.

Respectfully submitted,



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